

WHAT IS CLAIMED IS:

1. A voltage generating/transferring circuit comprising:
a boost unit group including a plurality of boost units series-connected between input and output nodes;
a first transistor connected between the input node and a node for receiving a first voltage; and
a capacitor connected to the output node,
wherein each boost unit has input and output portions, and includes a second transistor having a gate and a drain connected to the input portion and a source connected to the output portion, and a capacitor connected to the input portion, and
a gate of said first transistor is connected to the output node.
2. A voltage generating/transferring circuit according to claim 1, wherein said boost unit group includes not less than three boost units.
3. A voltage generating/transferring circuit according to claim 1, further comprising:
a third transistor which has a gate connected to the output node, and transfers a third voltage,
wherein a second voltage is equal to, or larger than a sum of the third voltage and a threshold voltage of said third transistor.
4. A voltage generating/transferring circuit according to claim 1, wherein a first oscillation signal is input to an even-numbered boost unit from the input node, a second oscillation signal is input to an odd-numbered boost unit from the input node, and the first and second oscillation signals have opposite phases or different timings.
5. A voltage generating/transferring circuit according to claim 1, wherein gate and source voltage levels of said first transistor gradually rise while changing in opposite phases.

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6. A voltage generating/transferring circuit according to claim 1, further comprising:
a circuit for fixing the gate of said first transistor to low level in an OFF state.
7. A voltage generating/transferring circuit according to claim 1, wherein a threshold voltage of the second transistor in at least one of the boost units is lower than a threshold voltage of said first transistor.
8. A voltage generating/transferring circuit according to claim 7, wherein a transistor having a threshold voltage lower than the threshold voltage of said first transistor is arranged in a boost unit closest to the output node.
9. A voltage generating/transferring circuit according to claim 1, wherein a threshold voltage of a transistor in a boost unit on the output node side is lower than a threshold voltage of a transistor in a boost unit on the input node side.